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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,163

04/19/2006

Daniel Willem Elisabeth Schobben

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

KURR, JASON RICHARD

ART UNIT

PAPER NUMBER

2614

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/576,163	<b>Applicant(s)</b> SCHOBEN, DANIEL WILLEM ELISABETH	
	<b>Examiner</b> JASON R. KURR	<b>Art Unit</b> 2614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Currently each section of the specification is not labeled with a heading.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 discloses “selecting frequency ranges (I, II, ...)”. This implies that there are an infinite number of ranges thus implying an infinite number of filter means for selecting each range. Such open ended limitations are regarded as indefinite. The Examiner suggests changing this to “(I, II, ..., N)”.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Based on Supreme Court precedent and recent Federal Circuit decisions, the Office's stance is that a process must (1) be tied to another statutory class (such as a machine) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under U.S.C. 101 and should be rejected as being directed to non-statutory subject matter.

An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps, such as claims 1-8. Thus, to qualify as a 101 statutory process, the claim should positively recite the other statutory class (the thing or product) to which it is tied, for example by identifying the apparatus that accomplishes the method steps, or positively recite the subject matter that is being transformed, for example by identifying the material that is being changed to a different state.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9, 15 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Weeks et al (US 7,013,011 B1).

With respect to claim 9, Weeks discloses a device for enhancing an audio signal, the device comprising: filter means (fig.3 #318) for selecting frequency ranges of the audio signal (col.8 ln.9-33), each selected frequency range being capable of containing a respective signal having a signal level (col.8 ln.34-38), detection means (fig.3 #326) for determining the signal level in at least a first frequency range (col.10 ln.4-8), control means (fig.3 #341) for generating control signals (fig.3 #346) in response to the signal level determined by the detection means (col.9 ln.56-65), and signal amplification/attenuation means (fig.3 #310) for attenuating the signal of a respective frequency range in response to the said control signals (col.11 ln.52-57), wherein the control means are arranged for: determining whether the signal level in the first frequency range exceeds a respective threshold value and, if this is true, decreasing the signal level in the first frequency range, and increasing the signal level in a second frequency range different from the first frequency range (col.10 ln.8-54).

With respect to claim 15, Weeks discloses the device according to claim 9, further comprising a conditioning filter (fig.3 #312) for conditioning the audio signal prior to selecting frequency ranges.

With respect to claim 16, Weeks discloses an audio system (fig.1) comprising a device according to claim 9.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weeks et al (US 7,013,011 B1) in view of Adelman (US 4,637,402).

With respect to claim 10, Weeks discloses the device according to claim 9, however does not disclose expressly further comprising transfer means for transferring a part of the signal of the first frequency range to the second frequency range.

Adelman discloses a transfer means (fig.3 #50) for transferring part of a signal of a first frequency range (fig.3 " $\Delta f_1$ ") to a second frequency range (fig.3 " $\Delta f_n$ ") for the purpose of condensing a wide band audio signal into frequency ranges capable of being heard by a user with hearing loss (col.2 ln.37-41,60-68, col.3 ln.1-5). At the time of the invention it would have been obvious to use the audio limiting circuit of Weeks in combination with the transfer means (#50) of Adelman in an audio device such as a hearing aid. The motivation for doing so would have been to both protect the transducer by limiting the level of the output audio via the circuit of Weeks, and to condense the spectrum of the output audio within an audible range of the user's hearing via the circuit of Adelman.

With respect to claim 11, Weeks discloses the device according to claim 10, wherein the transfer means comprise a frequency shifting circuit (Adelman: fig.3 #50).

With respect to claim 12, Weeks discloses the device according to claim 11, wherein the transfer means comprise a first signal multiplier (Adelman: fig.3 #52) for multiplying the signal from the first frequency range with a first coefficient before feeding said signal to the respective frequency shifting circuit (Adelman: col.6 ln.38-42).

With respect to claim 13, Weeks discloses the device according to claim 11, wherein the transfer means comprise a second signal multiplier (Adelman: fig.3 #54) for multiplying the frequency shifted signal from the first frequency range with a second coefficient before feeding said signal to the second frequency range (Adelman: col.6 ln.25-30).

With respect to claim 14, Weeks discloses the device according to claim 12, wherein the control means (Adelman: fig.5 #83,86,87) are arranged for deriving the first coefficient and/or the second coefficient from the control signals (Adelman: col.6 ln.59-68, col.7 ln.1-24,41-46).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

De Koning et al (US 4,783,819) discloses an automatically controlled amplifier arrangement.

Aarts et al (US 6,865,274 B1) discloses a loudspeaker production system having frequency band selective audio power control.

Kates (US 4,454,609) discloses a speech intelligibility enhancement.

Borth et al (US 4,630,305) discloses automatic gain selector for a noise suppression system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON R. KURR whose telephone number is (571)272-0552. The examiner can normally be reached on M-F 10:00am to 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571) 273-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit: 2614

/Jason R Kurr/

Examiner, Art Unit 2614

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2614